

## Patent claims

1. A voltage regulation system (11), with which a first voltage (VDD), present at an input (17) of the voltage regulating system (11), is changed into a second voltage (VINT), which can be tapped at an output (19c) of the voltage regulation system (11), with a first device (12, 13) for generating an essentially constant voltage (VBGR) from the first voltage (VDD), or a voltage derived from it

characterized in that a further device (34, 33) is provided in addition for generating a further voltage (VTRACK) from the first voltage (VDD) or a voltage derived from it.

2. A voltage regulation system (11) according to claim 1, in which the further voltage (VTRACK) generated by the further device (34, 33) can be higher than the voltage (VBGR) generated by the first device (12).

3. A voltage regulation system (11) according to claim 1 or 2, in which the further voltage (VTRACK) generated by the further device (34, 33) is proportional to the first voltage (VDD) or the voltage derived from it.

4. A voltage regulation system (11) according to claim 3, in the further device (34, 33) comprises a voltage divider circuit.

5. A voltage regulation system (11) according to one of the above claims, in which the voltage (VBGR) generated by the first device (12) or a voltage (VREF1) derived from it, and the further voltage (VTRACK) generated by the further device (34), or a voltage (VREF2) derived from it, can be used for controlling a voltage regulation circuit device (14), in particular as a reference voltage (VREF1, VREF2) for the voltage regulation

circuit device (14).

6. A voltage regulation system (11) according to one of the above claims, in which in addition a device (35) is provided for activating and/or deactivating the further device (34, 33).

7. A voltage regulation system (11) according to claim 6, in which - in the activated state of the further device (34, 33) - the height of the level of the reference voltage (VREF1, VREF2) used for the voltage regulation circuit device (14) is determined by whichever of the voltages (VBGR, VTRACK) generated by the first and further device (12, 34), or the voltages (VREF1, VREF2) derived from them, exhibits the higher level.

8. A voltage regulation system (11) according to claim 6 or 7, in which - in the deactivated state of the further device (34, 33) - the height of the level of the reference voltage (VREF1, VREF2) used for the voltage regulation system circuit device (14) is determined by the voltage (VBGR) generated by the first device (12) or the voltage (VREF1) derived from it.

9. A voltage regulation process, whereby a first voltage (VDD) is changed into a second voltage (VINT), in particular into a second voltage (VINT), which exhibits a lower voltage level than the first voltage (VDD), whereby the process comprises the step: generating an essentially constant voltage (VBGR) from the first voltage (VDD), or a voltage derived from it,

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the process in addition comprises the step: generating a further voltage (VTRACK) from the first voltage (VDD) or a voltage derived from it, in particular a further voltage (VTRACK), which can be higher than the constant voltage (VBGR) generated from the first voltage (VDD) or the voltage derived from it.